AKAI

MODEL AT-A305/L

SCHEMATIC DIAGRAM AND PC BOARDS

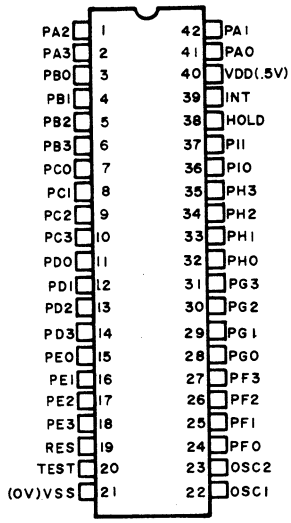
TABLE OF CONTENTS

1. SCHEMATIC DIAGRAM OF ICs 2
2. BLOCK DIAGRAM 5
3. AT-A305 SCHEMATIC DIAGRAM 6
4. AT-A305 P.C BOARD 7
5. AT-A305L SCHEMATIC DIAGRAM 8
6. AT-A305L P.C BOARD 9
7. FRONT END SCHEMATIC DIAGRAM 10

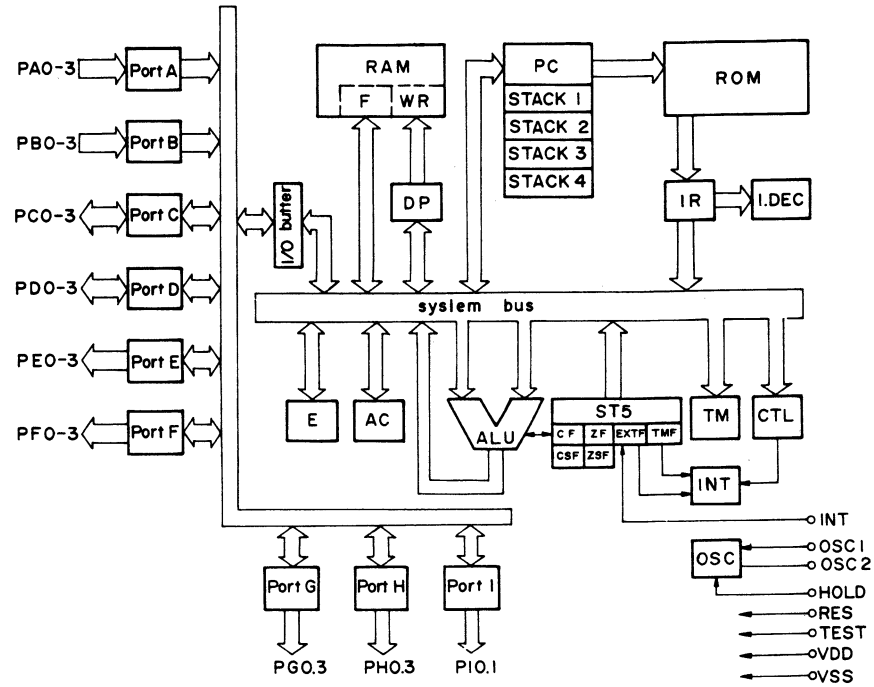
A3048

Pin	PORT NAME	DESCRIPTION
1	K2	Key scan input from Key matrix
2	K3	
3	SENS	Power ON detect input
5	$\overline{\text{STSIG}}$	IF signal input or muting signal input for detecting the station during auto-tuning. (active L)
6	$\overline{\text{STIN}}$	Auto tuning stop input from PLL IC (active L)
7	DATA	Transfer data to PLL IC
8	CL	Clock output to PLL IC (⌐)
9	CE	Chip enable output for selecting PLL IC (active H)
10	STRQ	Stop request output to PLL IC for IF amplifier function and IF frequency count down (active H)
14	MONO	Forced MONO control output
15	EDO	150 m sec output when Keys depressed (except MEMORY KEY) NO output when from Back-up mode.
17	ME9–16	Indicator output for 9~16ch Preset memory rewriting
18	$\overline{\text{AMUTE}}$	Audio mute output when band changed, tuning up/down, from back-up mode and preset memory reading.
19	$\overline{\text{RES}}$	Reset input
20	TEST	Connect to GND
21	VSS	Connect to GND
22	OSC1	Oscillator for clock
23	OSC2	
24	D0	Digit Data output for Indicator and Data for Key scan (active H)
25	D1	
26	D2	
27	D3	
28	a	Segment output for Indicator
29	b	
30	c	
31	d	
32	e	
33	f	
34	g	
35	h	
36	D4	Digit output for Indicator and Key scanning (active H)
37	D5	
38	$\overline{\text{HOLD}}$	Internal RAM hold input (active L)
39	$\overline{\text{INT}}$	Interupt request input
40	VDD	Power input (+5V)
41	K0	Key scan input from Key matrix
42	K1	

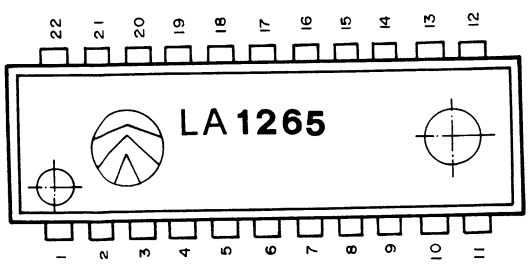
A3048

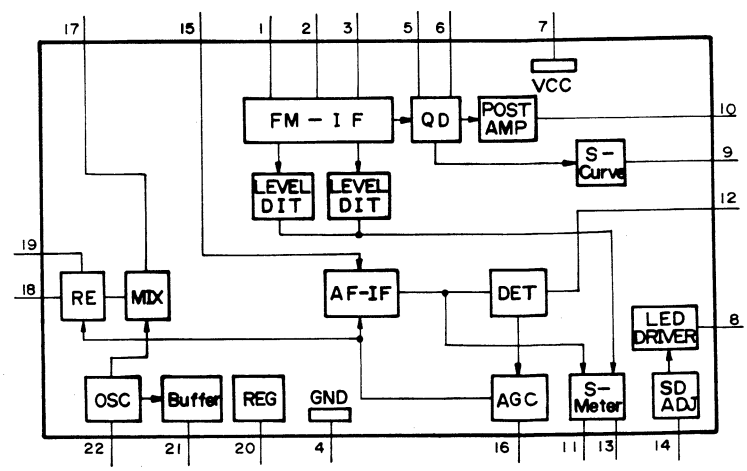


System Block Diagram

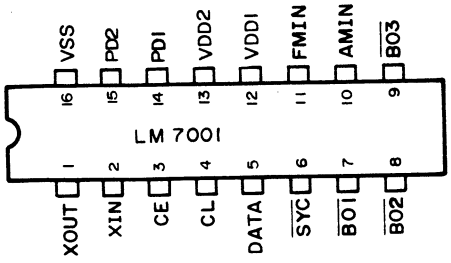


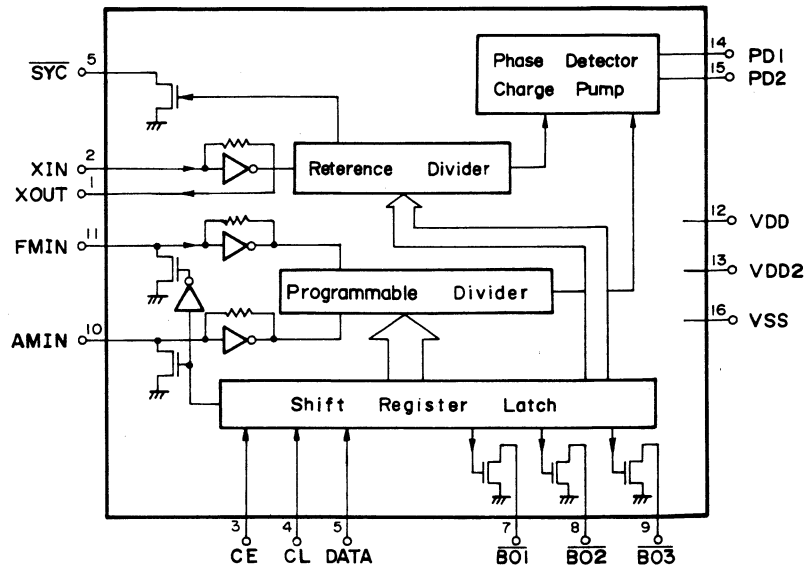
LA1265



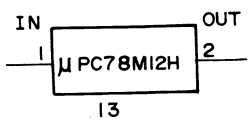


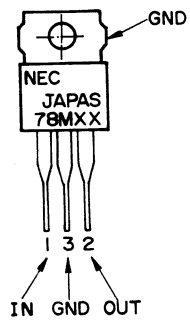
LM7001



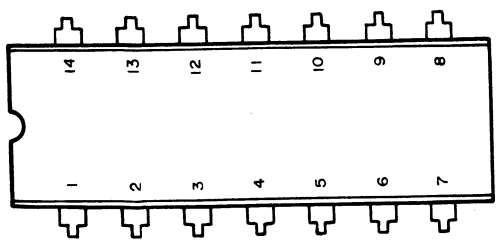


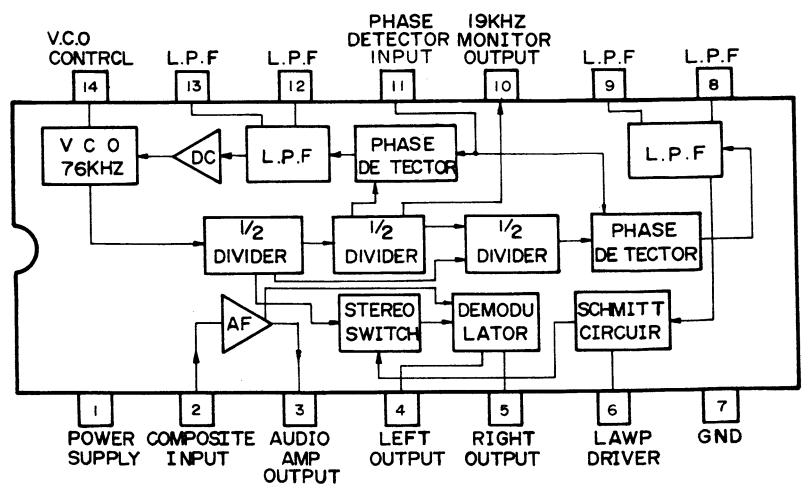
μPC78M12H





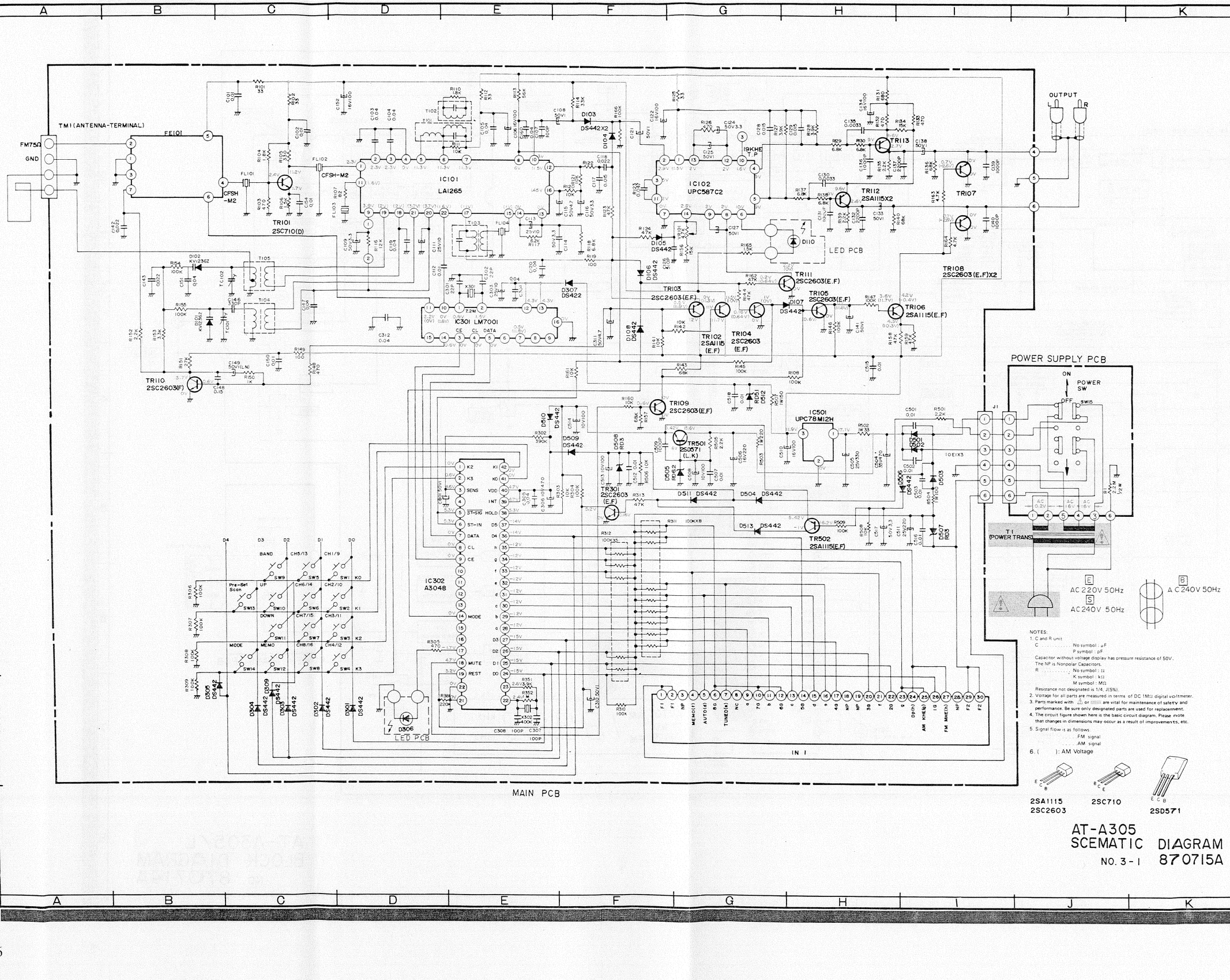
μPC587C2





AT-A305/L

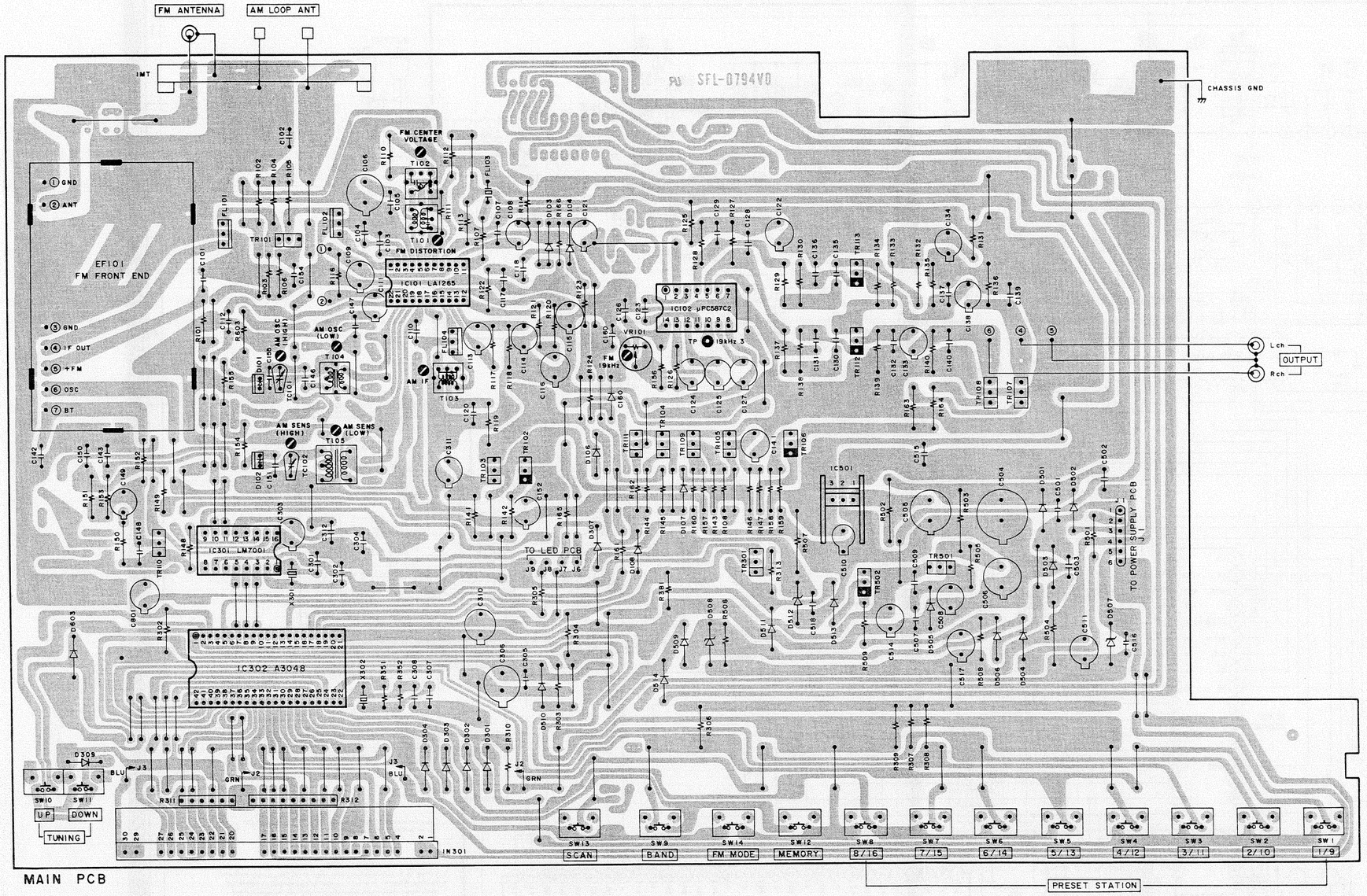
AT-A305/L
BLOCK DIAGRAM
NO. 870714A



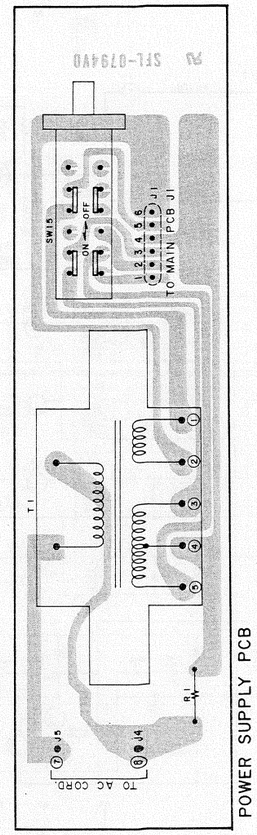
NOTES:

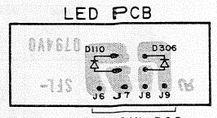
1. C and R unit
   C ..... No symbol : μF
   P symbol : pF
   Capacitor without voltage display has pressure resistance of 50V.
   The NP is Nonpolar Capacitors.
   R ..... No symbol : Ω
   K symbol : kΩ
   M symbol : MΩ
   Resistance not designated is 1/4, J(5%).
2. Voltage for all parts are measured in terms of DC 1MΩ digital voltmeter.
3. Parts marked with △ or ▨ are vital for maintenance of safety and performance. Be sure only designated parts are used for replacement.
4. The circuit figure shown here is the basic circuit diagram. Please note that changes in dimensions may occur as a result of improvements, etc.
5. Signal flow is as follows.
   ..... FM signal
   ..... AM signal
6. ( ): AM Voltage

AT-A305
SCEMATIC DIAGRAM
NO. 3-1 870715A



MAIN PCB





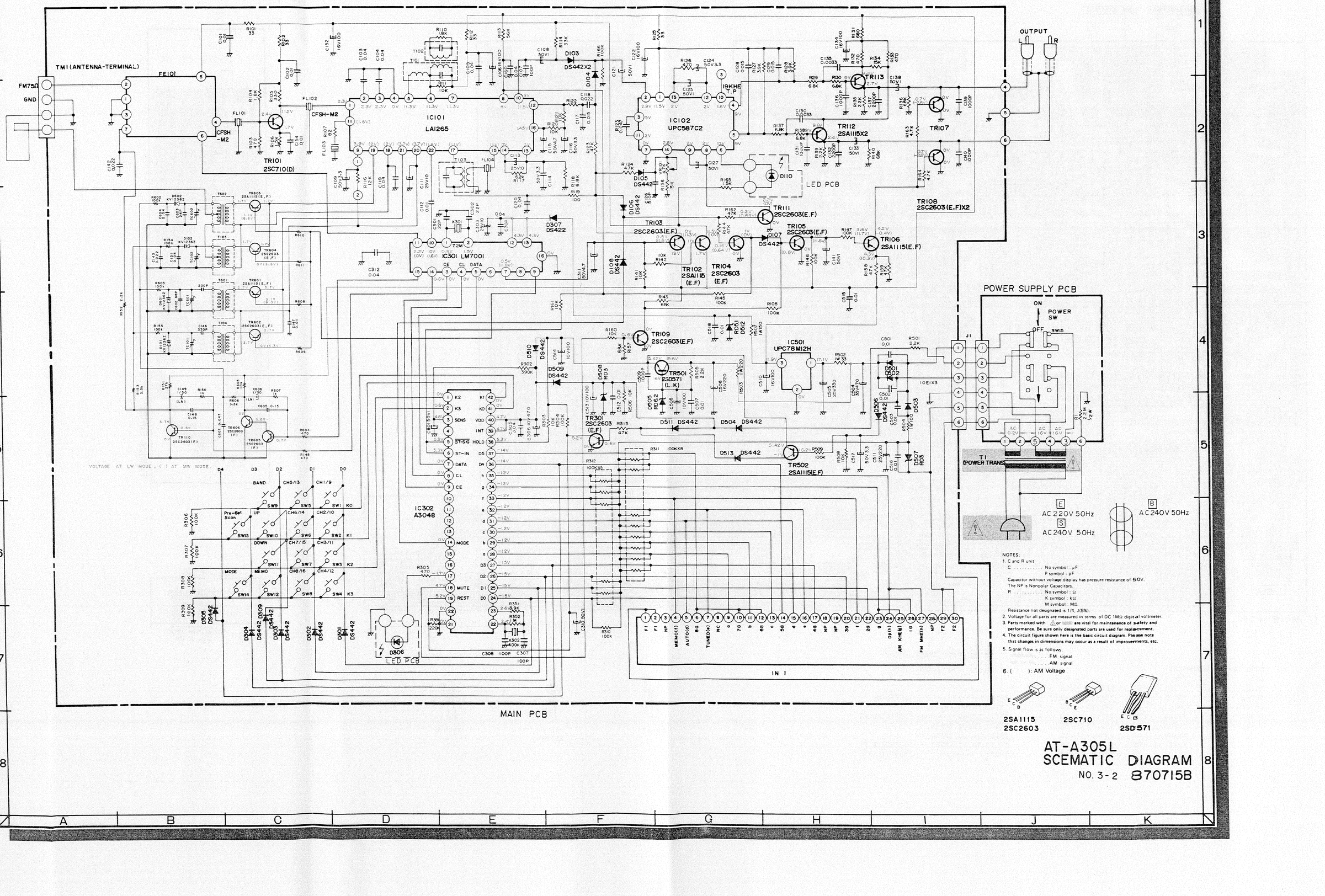
LOCATION OF COMPONENT

ICs	TRs		
IC101 ···· C2	TR101 ···· B2	TR109 ···· D3	
IC102 ···· D2	TR102 ···· C3	TR110 ···· A3	TR101 ····· 2SC710(D)
IC301 ···· B3	TR103 ···· C3	TR111 ···· D3	TR102,TR106,TR112,
IC302 ···· B4	TR104 ···· D3	TR112 ···· E2	TR113,TR502 ····· 2SA1115(E,F)
IC501 ···· E3	TR105 ···· E3	TR113 ···· E2	TR103,TR104,TR105,
	TR106 ···· E3	TR301 ···· E3	TR107,TR108,TR109,
	TR107 ···· F2	TR501 ···· F3	TR110,TR111,TR301 ··· 2SC2603(E,F)
	TR108 ···· F2	TR502 ···· E4	TR501 ····· 2SD571(L,K)

2SD571

2SA1115
2SC2603

2SC710



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   ..... FM signal
   ..... AM signal
6. ( ): AM Voltage

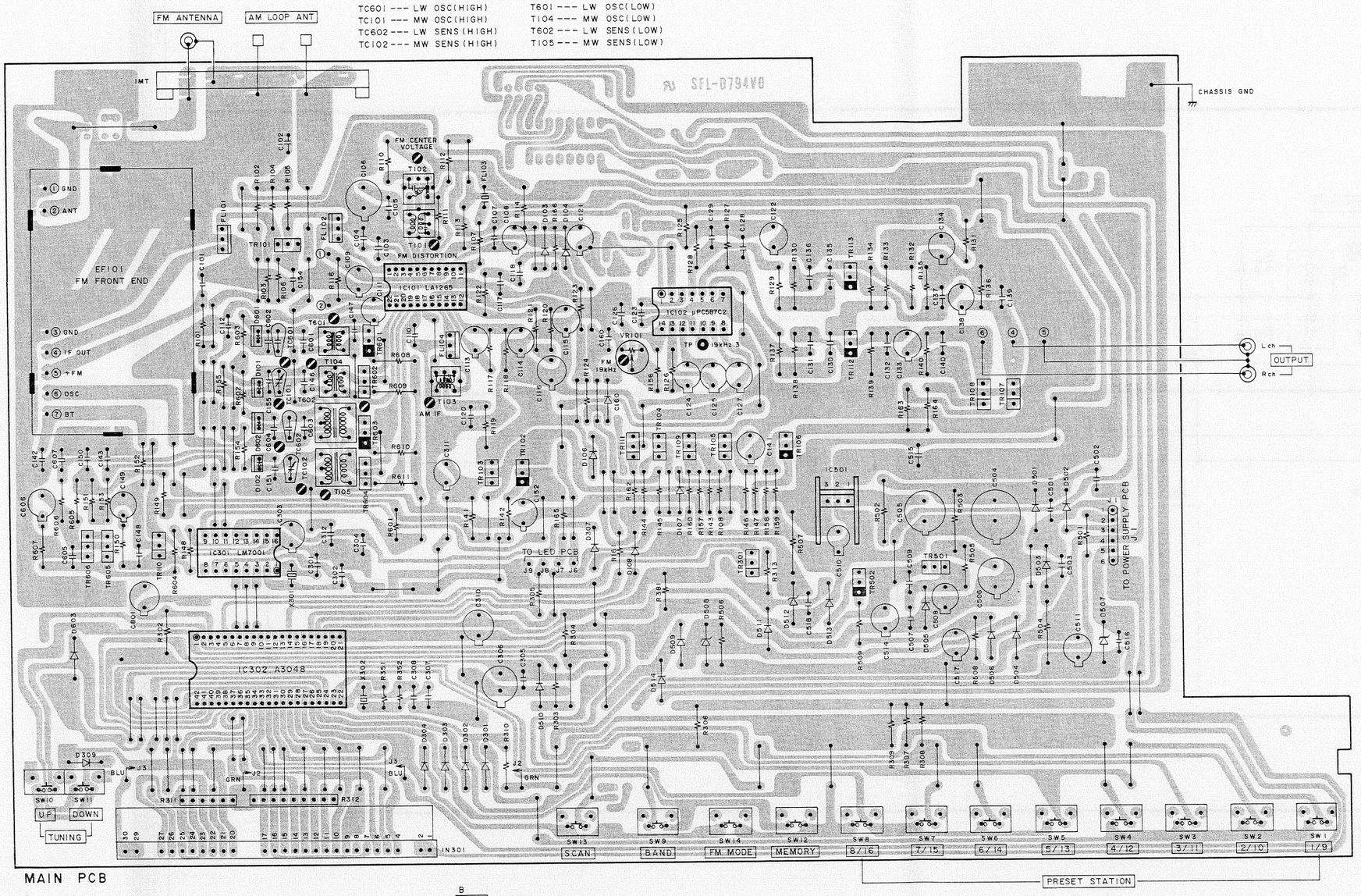
2SA1115 2SC2603 2SC710 2SD571

AT-A305L SCEMATIC DIAGRAM

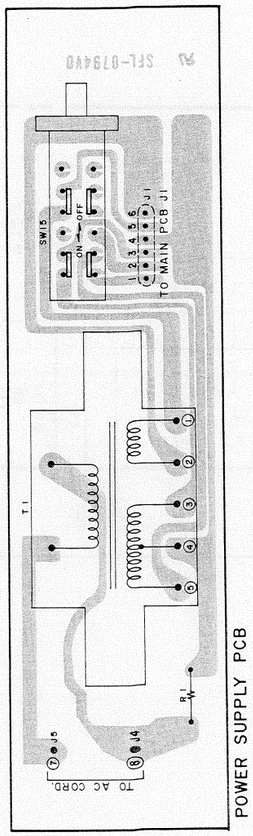
NO. 3-2 870715B

TC601 --- LW OSC(HIGH)
TC101 --- MW OSC(HIGH)
TC602 --- LW SENS(HIGH)
TC102 --- MW SENS(HIGH)

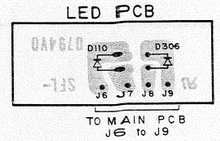
T601 --- LW OSC(LOW)
T104 --- MW OSC(LOW)
T602 --- LW SENS(LOW)
T105 --- MW SENS(LOW)



MAIN PCB



POWER SUPPLY PCB



LOCATION OF COMPONENT

ICs	TRs		
IC101 ···· C2	TR101 ···· B2	TR112 ···· E2	
IC102 ···· D2	TR102 ···· C3	TR113 ···· E2	
IC301 ···· B3	TR103 ···· C3	TR301 ···· E3	
IC302 ···· B4	TR104 ···· D3	TR501 ···· F3	
IC501 ···· E3	TR105 ···· E3	TR502 ···· E4	
	TR106 ···· E3	TR601 ···· C2	
	TR107 ···· F2	TR602 ···· C2	
	TR108 ···· F2	TR603 ···· C3	
	TR109 ···· D3	TR604 ···· C3	
	TR110 ···· A3	TR605 ···· A3	
	TR111 ···· D3	TR606 ···· A3	

B
= PNP TRANSISTOR
B

= NPN TRANSISTOR

TR101 ····· 2SC710(D)
TR102,TR106,TR112,
TR113,TR502
TR601,TR603 ····· 2SA1115
TR103,TR104,TR105,
TR107,TR108,TR109,
TR110,TR111,TR301
TR602,TR604,TR605,
TR606 ····· 2SC2603(E,F)
TR501 ····· 2SD571(L,K)

2SD571

2SA1115
2SC2603

2SC710

FE-31

NOTE
UNLESS OTHERWISE SPECIFIED;
ALL RESISTORS IN OHMS 1/6W(J)
ALL CAPACITORS IN uF 50WV(J)

FRONT END SCHEMATIC DIAGRAM

NO. 3-3 870716A